

DEPARTMENTAL PLAN FOR ASSESSMENT OF STUDENT LEARNING
2005-2006 ACADEMIC YEAR

Department: Pharmacology, Physiology, and Therapeutics

Mission Statement

The mission of the Graduate Program of the Department of Pharmacology, Physiology, and Therapeutics is to train and educate students to become successful scientists by providing a rigorous academic foundation combined with cutting-edge biomedical research training.

Student Learning Goals

Student Learning Goal 1: Students will acquire discipline-based knowledge in pharmacology and physiology.

Objective 1.1: Students will acquire discipline-based knowledge in physiology based upon the Medical Physiology Learning Objectives established by the American Physiological Society (APS)

[\[http://www.the-aps.org/education/MedPhysObj/medcor.htm\]](http://www.the-aps.org/education/MedPhysObj/medcor.htm).

Objective 1.2: Students will acquire discipline-based knowledge in pharmacology based upon the Knowledge Objectives in Medical Pharmacology established by the Association for Medical School Pharmacology (AMSP)

[\[http://www.aspet.org/AMSPC/Knowledge_Objectives/FirstEdition.asp\]](http://www.aspet.org/AMSPC/Knowledge_Objectives/FirstEdition.asp).

Educational Experiences

BIMD 500: Cellular & Molecular Foundations of Biomedical Science

BIMD 510: Basic Biomedical Statistics

BIMD 512/513: Seminars in Biomedical Statistics

PPT 500: Principles of Physiology & Pharmacology.

PPT 503: Advanced Pharmacology or Physiology

PPT 505: Research techniques

PPT 511: Biochemical and Molecular Mechanisms of Pharmacology

PPT 512: Special Topics in Pharmacology, Physiology and Therapeutics

PPT 521: Seminar in Pharmacology, Physiology and Therapeutics

PPT 525: Advanced Renal Physiology

PPT 526: Advanced Respiratory Physiology
PPT 527: Advanced Neurophysiology
PPT 528: Advanced Endocrinology
PPT 529: Advanced Cardiovascular Physiology
PPT 530: Advanced Neurochemistry
PPT 535: Mechanisms of Neurodegenerative Disorders
PPT 540: Molecular Neuropharmacology

Assessment Methods

Course examinations, presentations, discussions, and written assignments.
Oral presentations at journal clubs, research vignettes.
Student course evaluation surveys.

Timeline

Data will be collected from each student each semester.

Responsibilities

Course Directors will collect data. Results will be reported to the departmental Graduate Committee.

Use of Results and Process for Documentation and Decision-Making

The data will be interpreted by Course Directors, Faculty Advisory Committees, and the departmental Graduate Committee. Course Directors and the departmental Graduate Committee will work in conjunction to revise courses and other educational experiences, as necessary.

Student Learning Goal 2: Students will develop mastery of critical thinking skills.

Objective 2.1: Students will develop clearly stated, testable hypotheses and be able to rationalize the appropriate experimental means of testing their hypotheses.

Objective 2.2: Students will be able to evaluate evidence and determine its relevance in testing hypotheses.

Educational Experiences

BIMD 500: Cellular & Molecular Foundations of Biomedical Science
BIMD 510: Basic Biomedical Statistics
BIMD 512/513: Seminars in Biomedical Statistics
PPT 500: Principles of Physiology & Pharmacology.
PPT 503: Advanced Pharmacology or Physiology
PPT 505: Research techniques
PPT 511: Biochemical and Molecular Mechanisms of Pharmacology
PPT 512: Special Topics in Pharmacology, Physiology and Therapeutics
PPT 521: Seminar in Pharmacology, Physiology and Therapeutics
PPT 525: Advanced Renal Physiology

PPT 526: Advanced Respiratory Physiology
PPT 527: Advanced Neurophysiology
PPT 528: Advanced Endocrinology
PPT 529: Advanced Cardiovascular Physiology
PPT 530: Advanced Neurochemistry
PPT 535: Mechanisms of Neurodegenerative Disorders
PPT 540: Molecular Neuropharmacology
PPT 590: Readings in Pharmacology, Physiology and Therapeutics
PPT 591: Research in Pharmacology, Physiology and Therapeutics
PPT 998: Thesis
PPT 999: Dissertation
Journal Club
Research Vignettes

Assessment Methods

Course examinations, presentations, discussions, and written assignments.
Oral presentations at journal clubs, research vignettes.
Written and oral presentation of thesis and dissertation.
Student course evaluation surveys.

- While the 5XX-level courses are used primarily for delivering topical content, they will also incorporate an emphasis on the development of critical thinking skills.

Timeline

Data will be collected from each student each semester.

Responsibilities

Course Directors and Chairs of Faculty Advisory Committees will collect data. Results will be reported to the departmental Graduate Committee.

Use of Results and Process for Documentation and Decision-Making

The data will be interpreted by Course Directors, Faculty Advisory Committees, and the departmental Graduate Committee. Course Directors and the departmental Graduate Committee will work in conjunction to revise courses and other educational experiences, as necessary.

Student Learning Goal 3: Students will develop the appropriate skills necessary to design experiments and interpret results

Objective 3.1: Students will be able to identify and conduct the appropriate techniques to successfully acquire the data required to test a hypothesis.

Objective 3.2: Students will be able to summarize and analyze data using the appropriate statistical analyses to test hypotheses.

Educational Experiences

BIMD 510: Basic Biomedical Statistics
PPT 503: Advanced Pharmacology or Physiology
PPT 505: Research techniques
PPT 511: Biochemical and Molecular Mechanisms of Pharmacology
PPT 512: Special Topics in Pharmacology, Physiology and Therapeutics
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- While the 5XX-level courses are used primarily for delivering topical content, they will also incorporate an emphasis on the development of the skills necessary to design experiments and interpret results.

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Student Learning Goal 4: Students will develop appropriate communication skills.

Objective 4.1: Students will be able to deliver oral presentations that are clear and succinct to a variety of audiences and respond to questions appropriately.

Objective 4.2: Students will be able to write clearly and succinctly.

Educational Experiences

PPT 500: Principles of Physiology & Pharmacology.
PPT 503: Advanced Pharmacology or Physiology
PPT 505: Research techniques
PPT 511: Biochemical and Molecular Mechanisms of Pharmacology
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